

CLAIM AMENDMENTS

1 1. (original) A cutter (1) of a rotary pump for liquids
2 containing solid materials, the cutter having a rotating blade (2)
3 having at least one opening (5) through which the liquid flows that
4 forms a cutting edge and the blade is directed with one end face
5 (8) toward a nonrotating counter surface (9) that also has at least
6 one opening (12) through which the liquid flows, characterized in
7 that the end face (8) of the blade (2) that directed toward the
8 counter surface (9) is convex, whereas the counter surface (9) is
9 complementarily concave.

1 2. (original) The cutter according to claim 1,
2 characterized in that the curvature of the blade (2) forms a
3 spherical cap (dome).

1 3. (original) The cutter according to claim 2,
2 characterized in that an end of a radius (R) of the spherical cap
3 is situated on an axis of the pump shaft at the same level as a
4 shaft bearing that is near the pump impeller.

1 4. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1 , characterized in that the rotating blade
3 (2) is attached to the pump impeller at an end that is directed
4 away from the counter surface (9).

1 5. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that the counter surface
3 (9) is formed by a nonrotating element (10) that can be fixed in or
4 on the pump housing or that is formed by the pump housing.

1 6. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that the flow-through
3 openings (12) narrow in a flow direction and thus flare in a
4 downstream direction.

1 7. (original) The cutter according to claim 5 [[or 6]],
2 characterized in that the nonrotating element (10) is mounted in an
3 annular flange (11) that can be attached in or on the pump housing.

1 8. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that the rotating blade
3 (2) has two to four, preferably three sector-shaped openings (5).

1 9. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that the nonrotating
3 element (10) has four to six, preferably five sector-shaped
4 openings (12).

1 10. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that the cutting edges
3 (7) of the in particular radial webs (6) are formed or supported
4 between the openings (5) of the cutter (2).

1 11. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that it has an inlet tip
3 (13) between the sector-shaped openings (12) of the nonrotating
4 element.

1 12. (original) The cutter according to ~~one of the~~
2 ~~preceding claims~~ claim 1, characterized in that the rotating blade
3 (2) has the function of a further axial impeller due to the design
4 of the intake ports 5 that extend at an angle relative to the
5 rotational direction.